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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/812,500	03/20/2001	Frank G. Logan III	65,096-087	1796

7590 01/21/2005  
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EXAMINER

NGUYEN BA, HOANG VU A

ART UNIT PAPER NUMBER

2122

DATE MAILED: 01/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/812,500	LOGAN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Hoang-Vu A Nguyen-Ba	2122	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 September 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 17-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 17-21, 26 and 30-36 is/are rejected.
- 7) ☒ Claim(s) 22-25 and 27-29 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This action is responsive to the amendment filed September 16, 2004.
2. Claims 17-36 remain pending.

### ***Response to Amendment***

3. Per Applicants' request, claims 17, 18, 20, 24, 26, 27, 28, 29 and 35 have been amended.
4. The objection to claims 17 and 27-29 because of several minor informalities is hereby withdrawn in view of Applicants' amendments to these claims.
5. The rejection of claims 18, 20, 24, 25, 27, 28, 29, 35 and 36 under 35 U.S.C. § 112, second paragraph is withdrawn in view of Applicants' amendments to these claims to correct the identified deficiencies.
6. The rejection of claim 36 under 35 U.S.C. § 112, second paragraph as being indefinite is withdrawn in view of Applicants' persuasive arguments.
7. The rejection of claims 17-35 under the judicially created doctrine of obviousness type double patenting as being unpatentable over claims 1-18 of U.S. Patent No. 6,243,857 is hereby withdrawn in view of Applicants' filing of the Terminal Disclaimer on August 18, 2004.

### ***Response to Arguments***

8. Applicant's argument that claims 17-36 are now in condition for allowance is not persuasive because independent claims 17 and 31 are broader versions of original independent claims 1 and 14 of the parent application 09/024,773. It is further noted that the original claims of the parent application have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,852,047 to Lavalley et al.

("Lavallee") in view of U.S. Patent No. 4,831,580 to Yamada. These original claims have subsequently been amended and then allowed over the combination of these two prior art references.

### *Claim Rejections – 35 USC § 103*

9. The following is a quotation of the 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 17-21, 26, 30 and 32-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,852,047 to Lavallee et al. ("Lavallee") in view of U.S. Patent No. 4,831,580 to Yamada.

#### **Claim 17**

Lavallee discloses at least:

*a machine* (see at least Figure 1 and related discussion in the specification);  
*a computer based controller coupled to the machine and being adapted to edit, debug, and generate a continuous multi-block flowchart and to control the operations of the machine in accordance with the flowchart* (see at least 5:3-35; note that Lavallee's flowcharts are being displayed in a multi-block presentation and a block numbering system permits rapid on-screen generation of flowcharts, editing of flowcharts).

Lavallee does not specifically disclose *a display coupled to the computer based controller adapted to aid in editing and generating the flowchart, the display including a screen divided into a*

*plurality of columns and rows, the display adapted to display the flowchart with a plurality of blocks, each of the plurality of blocks being disposed within a cell defined by the columns and rows.*

However, Yamada, in an analogous art, teaches columns and rows forming cells where blocks can be inserted and connected together (see at least Figure 11, columns 0, 1, 2 and rows 0, 1, 2; and related discussion in the specification).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Yamada with Lavalée, as this combination would optimize productivity of Lavalée teachings and thereby reduce the costs associated with machine control system design and maintenance.

### **Claim 31**

Since claim 31 is an independent claim that recites a method comprising the same method steps performed by the machine programming and control system of claim 1, the same rejection is therefore applied.

### **Claims 18 and 33**

Rejections of base claims 17 and 31 are incorporated. Lavalée does not specifically disclose *wherein the computer based controller automatically generates high level source code for the program from the flowchart*. However, Yamada, in an analogous art, teaches a program generator that automatically generates a program based on a flowchart of series of sequence control processes (see at least 1:6-12). It would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Yamada with Lavalée, as this combination would optimize productivity of Lavalée teachings and thereby reduce the costs associated with machine control system design and maintenance.

**Claims 19 and 34**

Rejections of base claims 17 and 31 are incorporated. Lavallee does not specifically disclose *wherein the computer based controller automatically draws a connecting line between two associated ones of the blocks after editing*. However, this feature is deemed inherent to the teachings of Lavallee as 6:56 – 7:24 shows that horizontal lines, vertical lines and special symbols are being used for flowcharting and editing. Without the ability to connect special symbols with these horizontal and vertical lines, there would not be flowcharting.

**Claims 20 and 35**

Rejections of base claims 17 and 31 are incorporated. Neither Lavallee nor Yamada specifically teach *wherein the display is adapted to display a split screen having two portions and selectively displaying blocks in at least one of the two portions*.

However, Official notice is taken that the feature of displaying split screen is well known in the art of designing Windows-programming-based product (e.g., in Microsoft Word, split screen can be enabled by selecting the “Window” option in the main Menu and then the “Arrange All” option) for the purpose of enabling users to display document contents in two windows and effecting content changes in one window without affecting the same contents in the other window.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to incorporate this feature in Lavallee, as the use of this feature would optimize productivity of Lavallee teachings and thereby reduce the costs associated with machine control system design and maintenance.

### **Claims 21 and 36**

Rejections of base claims 17 and 31 are incorporated. Lavallee further discloses *wherein the display is adapted to form a debugging window for displaying the blocks and having a tool bar for controlling program flow* (see at least 5:18-22; 8:1-4).

### **Claim 26**

The rejection of base claim 17 is incorporated. Lavallee further discloses *wherein the computer based controller includes means for adding a break point associated with a flowchart block and wherein the computer based controller being adapted to stop at the break point during a debugging mode* (see at least 6:10-37).

### **Claims 30 and 32**

Rejections of base claims 17 and 31 are incorporated. Neither Lavallee nor Yamada specifically disclose *wherein a width of each column and a height of each row is determined in accordance with a size and spacing of the blocks*. Official notice is taken that the feature of determining the column width according to the block size is well known in the art as shown by the following analogous feature of Microsoft Word application program (in the main Menu, select the option "Table," then "Insert Table," and select the setting "Auto" for the option "Column Width"). It would have been obvious to a person having ordinary skill in the art at the time the invention was made to incorporate this feature in Lavallee, as the use of this feature would optimize productivity of Lavallee teachings and thereby reduce the costs associated with machine control system design and maintenance.

*Allowable Subject Matter*

11. Claims 22-25 and 27-29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. The prior art of record, taken individually or in combination, fail to teach or suggest the limitations recited in claims 22-25 and 27-29 when the features in claims are considered in combination with those of the base and intervening claims.

*Conclusion*

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoang-Vu "Antony" Nguyen-Ba whose telephone number is (571) 272-3701. The Examiner can normally be reached on Tuesday-Friday, 6:45 to 16:45.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Tuan Dam can be reached at (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR



only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>.  
Should you have questions on access to the Private PAIR system, contact the  
Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in cursive script, reading "Anthony Nguyen-Ba".

**ANTHONY NGUYEN-BA**  
**PRIMARY EXAMINER**

Art Unit 2122

January 15, 2005